ABSTRACT

Synchronising Circuit

In an integrated circuit receiving multiple serial data streams
in parallel, a local clock is generated from each data stream and
is synchronised with the data stream. Sometimes a data stream
may have no transitions making it difficult to keep the clock
synchronised with its data. A clock channel is provided, which
always has edges. A circuit is provided for each data stream
which measures the time elapsed since the data stream had an
edge. After a certain period, the phase of the local clock is
nudged towards that of the clock channel. Thereafter, the longer
there are no edges on the data stream the more frequently nudges
towards the phase of the clock channel are made.